

REMARKS

Claims 1-73 stand rejected. Claims 1-3, 8, 9, 12, 14, 15, 17, 19-24, 26, 30, 34-37, 39-52, 54-56, 61, 66, and 70-72 have been amended. Claims 6, 7, 18, 38, 53, 64, and 65 have been canceled. New claims 74-83 have been added. No new matter is introduced. Applicant respectfully requests reconsideration in view of the foregoing amendments.

Applicant hereby submits a Supplemental Information Disclosure Statement for consideration by the Examiner.

Claim Formalities

Claims 2-3, 8, 14, 15, 17, 19, 21, 22, 23, 24, 52, 54, 55, 61, 66, 71, 72 have been amended for purposes of clarity, proper antecedent basis, and/or grammatical errors. No new matter is introduced.

Claim Rejections – 35 U.S.C. § 101

The Examiner rejected claims 34-50 under 35 U.S.C. § 101 stating that the claimed invention is directed to non-statutory matter. The rejection is moot with respect to claim 38, now cancelled. Claims 34-37 and 39-50 have been amended to overcome this rejection. Applicants respectfully request withdrawal of the rejection.

Claim Rejections - 35 U.S.C. § 103

Claims 1-5, 7-37, 39-63 and 65-73

The Examiner rejected claims 1-5, 7-37, 39-63 and 65-73 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,473,902 (“Noritomi”) in view of U.S. Patent 5,815,662 (“Ong”).

The invention as now claimed relates to systems and processes for propagating media assets or replicas of assets to a system of target media storage based on a propagation priority. The propagation priority comprises a first priority that is associated with a selected asset and a second priority that is associated with a target. Thus, the propagation priority, which represents a

predicted economic value of propagating the selected asset to a target, is determined from the perspectives of both the asset and the target.

Claims 1, 12, 20, 26, 30, 51, 56, and 70 have been amended to clarify that the propagation priority comprises a first priority that is associated with a viewing asset and a second priority that is associated with a target. The target can be, for example, a video server, a video storage, a system of video servers, or a target device as recited in the respective claims. Support for these claim amendments can be found at least in FIGS. 6 and 7 and on page 18, line 13 through line 27; page 19, line 13 through line 19; and page 24, line 25 through page 30, line 10.

By way of example only, the first priority can be calculated based on one or more components associated with a user demand for the selected asset, such as short-term viewer demand, medium-term viewer demand, total number of requests, last-request-time, usage class data, or any combination thereof. The second priority can be calculated based on one or more components associated with the target video server, such as asset classification, number of replicas available to the target video server, number of replicas stored on the target video server, load on the target video server, available delivery paths to stream the selected asset to users, available bandwidth between the target video server and users, processing speed available to the target video server, or any combination thereof. (See page 24, line 25 through page 30, line 10 of the specification as originally filed). Neither Noritomi, Ong nor Jacobi et al, taken as a whole either alone or in combination, teach or suggest these features.

For example, with respect to amended claim 1, the claimed invention features a process of propagating viewing assets to a system of video servers that includes the steps of (i) generating a propagation priority for a selected viewing asset that represents a predicted economic value of propagating the selected asset to a target video server, the propagation priority comprising a first priority associated with the asset and a second priority associated with the target video server; (ii) generating a retention value for one or more viewing assets presently stored on the target video server, each retention value representing the a predicted economic value of retaining a replica of a corresponding viewing asset on the target video server; and (iii) copying a missing portion of a replica of the selected viewing asset to the target video server in

response to determining that the propagation priority of the selected viewing asset exceeds a sum of retention values of the one or more stored viewing assets on the target video server.

The present Office Action acknowledges that Noritomi fails to disclose a propagating priority representing a predicted economic value and the retention value. However, the Office Action states that Ong discloses such a priority, namely: "Ong discloses removing the oldest in time, lowest priority data block (title that has unused – [citations omitted]) to free a section of memory buffer for storing data block that has a higher priority (e.g. top 10 Movies of the week) – [citations omitted])."

Ong does not teach or suggest the step of "generating a propagation priority for a selected viewing asset . . . comprising a first priority associated with the asset and a second priority associated with the target video server," as now recited in amended claim 1. Rather, in Ong, each asset is associated with a priority based solely on the asset. Specifically, Ong only discusses determining a priority level for a video program according its popularity, such as "Top 10 Movies of the Week." (See col. 4, lines 18-42; col. 5, line 66 to col. 6, line 42) Ong does not teach or suggest that the priority level for the video program is based on a first priority associated with the asset and a second priority associated with a target (e.g., a cache in the case of Ong).

Thus, neither Noritomi nor Ong teaches or suggests that the propagation priority comprises both a first priority associated with the asset and a second priority associated with the target storage, as now recited in claims 1-5, 7-37, 39-63 and 65-73.

Furthermore, with respect to claim 1, Ong also does not teach or suggest the step of "copying a missing portion of a replica of the selected viewing asset to the target video server in response to determining that the propagation priority of the selected viewing asset exceeds a sum of retention values of the one or more stored viewing assets on the target video server." Rather, in Ong, data blocks are retained in memory for use by another group of clients if requested close enough in time to a request by a first group of clients. If no requests by another group of clients are made within a given time and the memory is full or if the title is of a low priority level, used blocks are removed. Again, the priority level is based solely on the popularity of the title. (See Abstract; col. 2, line 30 to col. 3, line 25; col. 3, line 65 to col. 4, line 42; col. 4, line 63 through col. 5, line 5).

U.S. Patent 6,064,980 ("Jacobi et al") also do not teach or suggest these features. Rather, in Jacobi et al, a recommendation service is disclosed which uses collaborative filtering techniques to recommend books to users of a Web site. The Web site includes a catalog of the various titles that can be purchased via the site. The recommendation service includes a database of titles that have previously been rated and that can therefore be recommended by the service using collaborative filtering methods. To increase the likelihood that new users will be familiar with these titles, the service automatically generates the startup list by identifying the titles that are currently the most popular, such as the titles that have been rated the most over the preceding week. (See Abstract)

For at least these reasons, neither Noritomi, Ong, nor Jacobi et al teach or suggest that the propagation priority comprises both a first priority associated with the asset and a second priority associated with the target storage, as recited in claims 1-5, 7-37, 39-63 and 65-73. Thus, claims 1-5, 7-37, 39-63 and 65-73 are novel and non-obvious in view of the cited prior art of record and, are believed to be patentable.

Claims 6, 38, and 64

Claims 6, 38, and 64 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Noritomi in view of Ong and further in view of U.S. Patent 6,064,980 ("Jacobi et al."). Claims 6, 38, and 64 have been canceled. The rejection is now moot.

New Claims 74-83

New claims 74-83 have been added.

Claim 74 recites a feature of the retention value comprising (i) a first value associated with the viewing asset and indicative of an economic value of retaining a set of replicas of the viewing asset on the video servers and (ii) a second value associated with the target video server and indicative of an economic value of retaining the set of replicas on the target video server.

Claims 75-76 recite one or more components from which the first priority of the propagation priority for a selected viewing asset can be calculated.

Claims 77-78 recite a feature in which each of the one or more components for calculating the first priority of the propagation priority is associated with a coefficient indicative of its importance.

Claims 79-80 recite one or more components from which the second priority of the propagation priority for a selected viewing asset can be calculated.

Claims 81-82 recite a feature in which each of the one or more components for calculating the second priority of the propagation priority is associated with a coefficient indicative of its importance.

Claim 83 recite a feature of the retention value comprising a third priority associated with the one or more viewing assets and a fourth priority associated with the target video server.

Support for each of these claims can be found at least in the specification on page 24, line 25 through page 30, line 10.

By virtue of their dependency upon claim 1 and the additional features recited therein, claims 74-83 are also believed to be patentable.

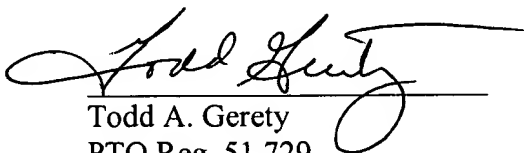
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CONCLUSION

In view of the above amendments and remarks, it is believed that claims 1-5, 8-17, 19-37, 39-52, 54-63, and 66-83 are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,



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